WHAT IS CLAIMED IS:

1. A liquid crystal display including a liquid-crystal display unit having a matrix of multiple pixels comprising:

a divider to divide a field of a digital input video signal to be supplied to the liquid-crystal display unit into a plurality of subfields; and

an adjuster to adjust a voltage of the digital video signal per subfield to compensate for change in gamma characteristics of the liquid-crystal display unit.

2. The liquid crystal display according to claim 1 further comprising a producer to produce a first pulse signal in accordance with periods of the subfields and a second pulse signal in accordance with the video signal, and superimpose the second pulse signal on the first pulse signal, thus producing the digital video signal.

3. The liquid crystal display according to claim 2, wherein the second pulse signal is smaller than the first pulse signal.

4. The liquid crystal display according to claim 2, wherein the adjuster adjusts a voltage of the first pulse signal while keeping a voltage of the second pulse signal at a given constant level.

5. The liquid crystal display according to claim 2, wherein the adjuster adjusts a voltage of the second pulse signal while keeping a voltage of the first pulse signal at a given constant level.

6. The liquid crystal display according to claim 1 further comprising a detector to detect a temperature of the liquid-crystal display unit, the adjuster adjusting the voltage of the digital video signal per subfield in accordance with the detected temperature to compensate for a temperature-dependent change in the gamma characteristics of the liquid-crystal display unit.

7. The liquid crystal display according to claim 6 further comprising a memory storing compensation data, based on change in the temperature of the liquid-crystal display unit, for compensating for the temperature-dependent change in the gamma characteristics of the liquid-crystal display unit, the adjuster accessing the compensation data and adjusting the voltage of the digital video signal based on the

compensation data.

8. The liquid crystal display according to claim 6, wherein the detector is provided as embedded in a semiconductor substrate on which the liquid-crystal display unit is assembled.

9. A liquid crystal display including a liquid-crystal display unit having a matrix of multiple pixels comprising:

a divider to divide a digital video signal to be supplied to the liquid-crystal display unit into a plurality of subfields; and

an adjuster to adjust a period of at least one subfield of the video signal to compensate for change in gamma characteristics of the liquid-crystal display unit.

10. The liquid crystal display according to claim 9, wherein the adjuster adjusts the longest period of one subfield of the video signal in accordance with the detected temperature.

11. The liquid crystal display according to claim 9 further comprising a detector to detect a temperature of the liquid-crystal display unit; the adjuster adjusting the period of at least one subfield of the video signal in accordance with the detected temperature to compensate for a temperature-dependent change in the gamma characteristics of the liquid-crystal display unit.

12. The liquid crystal display according to claim 11 further comprising a memory storing compensation data, based on change in temperature of the liquid-crystal display unit, for compensating for the temperature-dependent change in the gamma characteristics of the liquid-crystal display unit, the adjuster accessing the compensation data and adjusting the period of the subfield of the video signal based on the compensation data.

13. The liquid crystal display according to claim 11, wherein the detector is provided as embedded in a semiconductor substrate on which the liquid-crystal display unit is assembled.

14. A liquid crystal display including a liquid-crystal display unit having a matrix of multiple pixels comprising:

a detector to detect a temperature of the liquid-crystal display unit; and

an adjuster to adjust the temperature of the liquid-crystal display unit to a given temperature in response to the detected temperature to compensate for a temperature-dependent change in gamma characteristics of the liquid-crystal display unit.

15. The liquid crystal display according to claim 14, wherein the adjuster includes a cooling mechanism for cooling the liquid-crystal display unit, the adjuster controlling the cooling mechanism to cool down the liquid-crystal display unit when the temperature of the liquid-crystal display unit rises above the given temperature.

16. The liquid crystal display according to claim 15, wherein the cooling mechanism employs a refrigerant to cool down the liquid-crystal display unit.

17. A color liquid crystal display including spatial light modulators for colors red, green and blue comprising:

a detector to detect a temperature of each spatial light modulator; and

an adjuster to adjust the temperature of each spatial light modulator to a given temperature or within a given temperature range in response to the detected temperature to compensate for a temperature-dependent change in gamma characteristics of the spatial light modulators.

18. The color liquid crystal display according to claim 17, wherein the adjuster adjusts the temperature of the spatial light modulator for the color green to a first temperature, the temperature of the spatial light modulator for the color blue to a second temperature lower than the first temperature, and the temperature of the spatial light modulator for the color red to a third temperature between the first and second temperatures.

19. A method of driving a liquid crystal display including a liquid-crystal display unit having a matrix of multiple pixels comprising the steps of:

dividing a field of a digital input video signal to be supplied to the liquid-crystal display unit into a plurality of subfields; and

adjusting a voltage of the digital video signal per subfield to compensate for change in gamma characteristics of the liquid-crystal display unit.

20. The method of driving a liquid crystal display according to claim 19 further comprising the steps of:

producing a first pulse signal in accordance with periods of the subfields and a second pulse signal in accordance with the video signal; and

superimposing the second pulse signal on the first pulse signal, thus producing the digital video signal.

21. The method of driving a liquid crystal display according to claim 20, wherein the second pulse signal is smaller than the first pulse signal.

22. The method of driving a liquid crystal display according to claim 20, wherein the adjusting step includes the step of adjusting a voltage of the first pulse signal while keeping a voltage of the second pulse signal at a given constant level.

23. The method of driving a liquid crystal display according to claim 20, wherein the adjusting step includes the step of adjusting a voltage of the second pulse signal while keeping a voltage of the first pulse signal at a given constant level.

24. The method of driving a liquid crystal display according to claim 19, further comprising the step of detecting a temperature of the liquid-crystal display unit, the adjusting step including the step of adjusting the voltage of the digital video signal per subfield in accordance with the detected temperature to compensate for a temperature-dependent change in the gamma characteristics of the liquid-crystal display unit.

25. The method of driving a liquid crystal display according to claim 24, wherein the adjusting step includes the step of accessing compensation data, based on change in the temperature of the liquid-crystal display unit, for compensating for the temperature-dependent change in the gamma characteristics of the liquid-crystal display unit, thus, adjusting the voltage of the digital video signal based on the compensation data.

26. A method of driving a liquid crystal display including a liquid-crystal display unit having a matrix of multiple pixels comprising the steps of:

dividing a field of a digital input video signal to be supplied to the liquid-crystal display unit into a plurality of subfields; and

adjusting a period of at least one subfield of the video signal to compensate for change in gamma characteristics of the liquid-crystal display unit.

27. The method of driving a liquid crystal display according to claim 26, wherein the adjusting step includes the step of adjusting the longest period of one subfield of the video signal in accordance with the detected temperature.

28. The method of driving a liquid crystal display according to claim 26 further comprising the step of detecting a temperature of the liquid-crystal display unit, the adjusting step including the step of adjusting the period of at least one subfield of the video signal in accordance with the detected temperature to compensate for a temperature-dependent change in the gamma characteristics of the liquid-crystal display unit.

29. The method of driving a liquid crystal display according to claim 28, wherein the adjusting step includes the step of accessing compensation data, based on change in temperature of the liquid-crystal display unit, for compensating for the temperature-dependent change in the gamma characteristics of the liquid-crystal display unit, thus accessing the compensation data and adjusting the period of the subfield of the video signal based on the compensation data.

30. A method of driving a liquid crystal display including a liquid-crystal display unit having a matrix of multiple pixels comprising the steps of:

detecting a temperature of the liquid-crystal display unit; and

adjusting the temperature of the liquid-crystal display unit to a given temperature in response to the detected temperature to compensate for a temperature-dependent change in gamma characteristics of the liquid-crystal display unit.

31. The method of driving a liquid crystal display according to claim 30, wherein the adjusting step includes the step of cooling the liquid-crystal display unit when the temperature of the liquid-crystal display unit rises above the given temperature.

32. A method of driving a color liquid crystal display including spatial light modulators for colors red, green and blue comprising the steps of:

detecting a temperature of each spatial light modulator; and

adjusting the temperature of each spatial light modulator to a given temperature or within a given temperature range in response to the detected temperature to compensate for a temperature-dependent change in gamma characteristics of the spatial light modulators.

33. The method of driving a color liquid crystal display according to claim 32, wherein the adjusting step includes the steps of:

adjusting the temperature of the spatial light modulator for the color green to a first temperature;

adjusting the temperature of the spatial light modulator for the color blue to a second temperature lower than the first temperature; and

adjusting the temperature of the spatial light modulator for the color red to a third temperature between the first and second temperatures.